



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------------|
| 10/790,656 | 03/01/2004 | Chirag D. Dalal | VRT0126US | 9561 |
| 60429 | 7590 | 11/02/2006 | | EXAMINER LI, ZHUO H |
| CSA LLP 4807 SPICEWOOD SPRINGS RD. BLDG. 4, SUITE 201 AUSTIN, TX 78759 | | | ART UNIT 2185 | PAPER NUMBER |

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/790,656 | DALAL ET AL. | |
| | Examiner | Art Unit | |
| | Zhuo H. Li | 2185 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>7-30/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 7/30/2004 has been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 8-16 and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Russell (US PAT. 6,826,600).

Regarding claim 1, Russell discloses a method comprising a computer system (100, figure 1) creating a first storage object (150, figure 1), wherein the first storage object is created to have a property (col. 10 lines 58-61 and col. 14 lines 13-18, i.e., a client computer system operating software to generate local object definitions and object property 152 being a local object identification that identifies the local object definitions), the computer system creating a second storage object out of the first storage object, wherein the second storage object depends on the property of the first storage object (col. 11 lines 2-10 and col. 14 lines 29-54, i.e., a sever creating a global object specification corresponding local object definitions), and the computer

system modifying the first storage object, wherein the modified first storage object maintains the property upon which the second storage object depends (col. 11 lines 10-24, col. 14 lines 55-62 and col. 15 lines 16-22, i.e., providing new global object specification object definitions to the client and replacing the local object specification with the new global object specification).

Regarding claim 2, Russell discloses the computer system creating a third storage object, wherein the third storage object is created to have a property (col. 19 lines 28-56, i.e., creating a new object specification once a collaboration session is underway), wherein the computer system creates the second storage object out of the first and third storage object, wherein the second storage object depends on the properties of the first and third objects (col. 20 lines 1-62, i.e., server 130 creating a new object definitions, read as third storage object, within the global object identification, read as second storage object based on the command or other instruction from client such that the new object definition includes a new unique global object definition and any object properties specified in the object operation are also included as object properties).

Regarding claim 3, Russell teaches the steps of creating the first storage object comprising creating a first description of the first object and transmitting all or a portion of the first description to a first computing system (col. 10 line 58 through col. 11 line 2), and creating the second storage object comprising creating a second description of the first storage object and transmitting all or a portion of the second description to a second computer system (col. 11 lines 2-12).

Regarding claim 4, Russell teaches the step of modifying the first storage object comprising creating a modified first description of the modified first storage object and transmitting the modified first description to the first computer system (col. 11 lines 13-24).

Regarding claim 5, Russell teaches the second description comprising a configuration map that maps a local memory block of the second storage object to a logical memory block of the first storage object (col. 18 lines 1-11).

Regarding claim 8, Russell discloses a method comprising a computer system (100, figure 1) creating a first storage object (150, figure 1), wherein the first storage object is created to have a individual or collective properties (col. 10 lines 58-61 and col. 14 lines 13-18, i.e., a client computer system operating software to generate local object definitions and object property 152 being a local object identification that identifies the local object definitions), the computer system creating a second storage object out of the first storage object, wherein the second storage object depends on the individual or collective properties of the first storage object (col. 11 lines 2-10 and col. 14 lines 29-54, i.e., a sever creating a global object specification corresponding local object definitions), and the computer system receiving information that the property of a storage object of the one or more first storage objects has changed and that the second object can no longer depend on the individual or collective properties of the one or more first storage object (col. 11 lines 10-24, col. 18 lines 12-16, i.e., determining that the local in global object specifications do not contain corresponding object definitions), the computer system responding after receiving the information (col. 18 lines 16-21, i.e., providing an indication that it did not map the local object specification to the global object specification).

Regarding claim 9, Russell discloses the computer responding comprising generating a message indicating that warning that the second storage object con no longer depend on the individual or collective properties of the one or more storage object (col. 18 lines 16-21).

Regarding claims 10-11, Russell discloses the computer responding comprising replacing the storage object with a new storage object, which modifies the storage object (col. 18 lines 22-39).

Regarding claim 12, the limitations of the claim are rejected as the same reasons as set forth in claim 1.

Regarding claim 13, the limitations of the claim are rejected as the same reasons as set forth in claim 2.

Regarding claim 14, the limitations of the claim are rejected as the same reasons as set forth in claim 3.

Regarding claim 15, the limitations of the claim are rejected as the same reasons as set forth in claim 4.

Regarding claim 16, the limitations of the claim are rejected as the same reasons as set forth in claim 5.

Regarding claims 19-21, the limitations of the claims are rejected as the same reasons as set forth in claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-7 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell (US PAT. 6,826,600) in view of Furuhashi et al. (US 2003/0229698 hereinafter Furuhashi).

Regarding claims 6-7, Russell differs from the claimed invention in not specifically teaching creating the first storage object comprising allocating a logical unit or a physical storage device of a data storage subsystem to the first storage object, wherein the first description comprises a configuration map that maps a logical memory block of the first storage object to a logical memory block of the logical unit or to a physical memory block of the physical storage device. However, Furuhashi teaches information processing system having data storage area allocating unit (224, figure 1), read as a logical unit, for mapping a logical memory block of a first storage object to a logical memory block of the logical unit ([0045], i.e., allocating unit specifies a position of a storage area to which the data is stored in respond of read kind or utilization purpose on the bases of characteristic information of the memory device) in order to improve the access performance to data and its reliability in a technique of allocating data to a plurality of storage areas of a storage. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Russell in creating the first storage object comprising allocating a logical unit or a physical storage device of a data storage subsystem to the first storage object, wherein the first description comprises a configuration map that maps a logical memory block of the first storage object to a logical memory block of the logical unit or to a physical memory block of the physical storage device, as per teaching of Furuhashi, in order to improve the access performance to data and its reliability in the technique of allocating the data to the plurality of storage areas of the storage.

Regarding claims 17-18, the limitations of the claims are rejected as the same reasons as set forth in claims 6-7.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dalal et al. (US 2006/0069864) discloses a method to detect and suggest corrective action when performance and availability rule are violated in an environment deploying virtualization at multiple levels (abstract). Schultz (US PAT. 6,192,371) discloses a system for morphing an object from one class to another in an object oriented computing environment implementation by a relational database (abstract). Baisley et al. (US PAT. 6,453,324) discloses an improved method for maintaining a version history of objects in a repository (col. 2 lines 13-52). D'Errico et al. (US PAT. 6,457,139) discloses a method for providing a host computer with information relating to the mapping of logical volumes within an intelligent storage system (abstract).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhuo H. Li whose telephone number is 571-272-4183. The examiner can normally be reached on Tues - Fri 9:00am - 6:30pm and alternate Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah, can be reached on 571-272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zhuo H. Li
Patent Examiner



SANJIV SHAH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100